Amiga startup routine

Amiga system test is a complicated set of routines which it must go through before you can do any work on it.   During the system test the Amiga is attempting to let you know if the system is well.

Here is a list of the start-up activities:

1. Clear all chips of old data.
2. Disable DMA and interrupts during the test.
3. Clear the screen.
4. Check the hardware ....checks to see if 68000 is functioning.
5. Change screen color.
6. Do a checksum test on all ROMS.
7. Change screen color.
8. Begining of system startup.
9. Check RAM at $C0000, and move SYSBASE there.
10. Test All CHIP RAM.
11. Change screen color.
12. Check that software is coming in ok.
13. Change screen color.
14. Setup CHIP RAM to receive data.
15. Link the libraries.
16. Check for additional memory and link it.
17. Turn the DMA and interrupts back on.
18. Start a default task.
19. Check for 68010, 68020, and or 68881.
20. Check to see if there is an exception ...processor error
21. If so do a system reset.

During this system test the Amgia is sending vital information to the screen with colors. If the system checks out ok, you will see the following sequence that you have seen so many times.

DARK GRAY: The initial hardware tested OK. the 68000 is running and the registers are readable.

LIGHT GRAY: The software is coming in and seems OK.

WHITE: The intialization test have passed.

If something is wrong with your system, you may see the following:

RED: If an error was found in ROMS.

GREEN: Error found in the CHIP RAM.

BLUE: Error was found in the custom chips.

YELLOW: If 68000 found an error before the error trapping
            software (GURU) was running.

The Keyboard has it's own processor, RAM and ROM. A selftest is performed on power-up in the following sequence.

1. Performs checksum on ROM's.

2. Checks 64 bytes of RAM.

3. The timer is tested.

4. Performs handshake with computer and gives results of
   selftest.

   If the keyboard does not pass the test it will notify you that it is not working properly. This information is indicated with the blinking of the CAPS-LOCK light.

One Blink: Keyboard ROM check failed.

Two Blinks: Keyboard RAM checked failed.

Three Blinks: Watch dog timer failed.

Four Blinks: A short between two row lines or special control
                keys.

If you are having problems with the Amiga, perhaps these codes will help you and your repairman.

This article was first authored by Roy Frisque and published on the newsletter Scanlines. Roy obtain his information from the Amiga Transactor, which is a great resource for the Amiga.